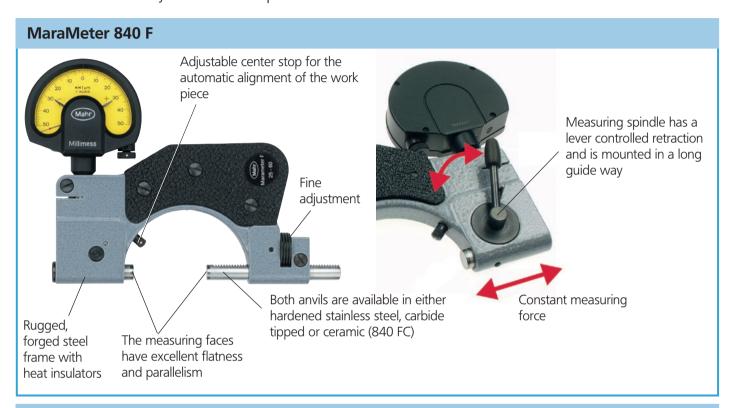


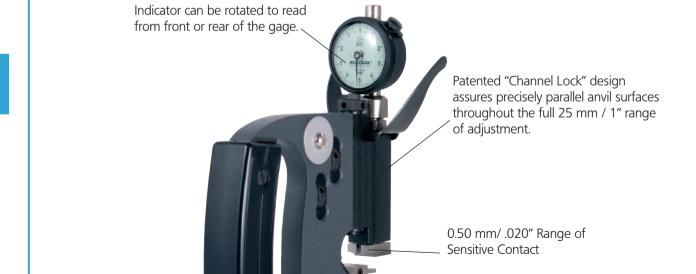
# MaraMeter. Indicating Snap Gages

# Overview

MaraMeter 300 P-1

▶ | MaraMeter. The Indicating Snap Gage is ideal for highly accurate and reliable results on cylindrical work pieces with a narrow tolerance.





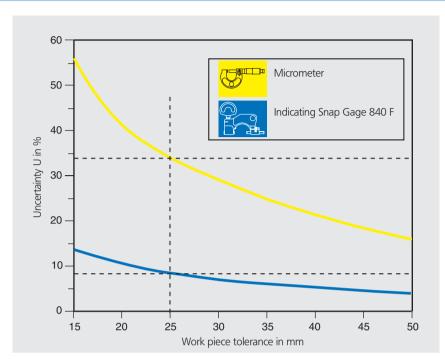
Large 15.5 mm / .61" square tungsten carbide anvils provide flat, parallel, long-lasting working surfaces ensuring precision that lasts.



# Advantages of the Snap Gage compared to a Micrometer

#### Reduced Measuring Uncertainity

The MaraMeter Indicating Snap Gages have a notably reduced measuring uncertainty in comparison to to a Micrometer.



Measuring Uncertainty U is dependent upon the tolerance of the work piece

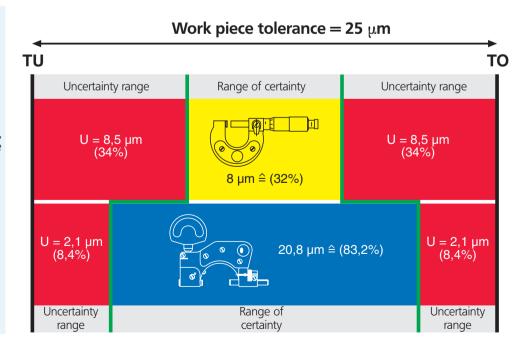
#### Better utilization of the tolerance zone

Example:

Work piece tolerance 25 µm

The measured value in the uncertainty range can lie outside of the tolerance range, therefore the utilized tolerance of the micrometer is reduced to only 32% (8 µm).

With a MaraMeter Indicating Snap Gage 83% (20.8  $\mu$ m) of the work piece tolerance can be utilized.

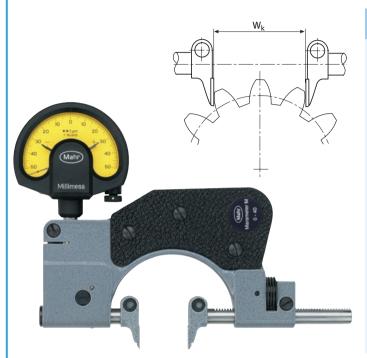


#### Advantage:

With the Indicating Snap Gage the tolerance zone can be used to far greater extent, thus reducing the production costs.



# Indicating Snap Gages 840 FM MaraMeter M with measuring jaws



# **Features**

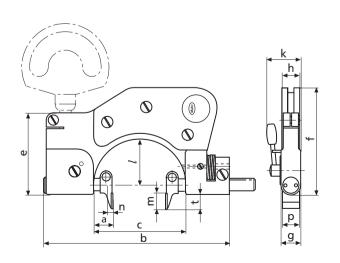
- For diameters of small hubs, registers, shoulders on shafts and groove widths as well as for tooth span Wk as indirect, reference-free determination of tooth thickness on spur gears with straight and helical teeth
- Rugged, forged steel frame with heat insulators
- Measuring spindle is mounted in long guide way with levercontrolled retraction
- Anvil spindle can easily be fine adjusted
- Maximum wear resistance due to non-contact positioning in conjunction with carbidetipped measuring faces

- Measuring spindle and anvil spindle made of hardened stainless steel; with extending carbide-tipped measuring jaws
- Constant measuring force as a result of built-in spring, thus eliminating user influence
- Universally applicable and extremely versatile, each instrument spans a broad measuring range, within this range any dimension and fit can be very quickly and easily adjusted

# **Technical Data**

<b>Measuring</b> <b>range</b> mm <b>(inch)</b>	Measuring force N	area mm	<b>Measuring face</b> flatness μm	parallelism μm	<b>Tooth span</b> measurements as per module m	Order no.*	Order no. Wooden case
0 - 40 <b>(0 - 1.57</b> ")	7.5	12 x 12	≤ 0.5	≤ 2	0.5	4452000	4450011
40 - 80 <b>(1.57 - 3")</b>	7.5	12 x 12	≤ 0.5	≤ 3	0.5	4452001	4450012
80 - 130 <b>(3 - 5")</b>	9	15 x 17	≤ 0.5	≤ 3	1.0	4452002	4450013
130 - 180 <b>(5 - 7")</b>	9	15 x 17	≤ 0.5	≤ 3	1.0	4452003	4450014

<sup>\*</sup> Excludes indicating instrument



#### **Dimensions**

Meas. range (mm) Dist mov. anvil (mm	0 - 40	40 - 80 2.5	80 - 130 2.5	130 - 180 2.5
a* b c e f g h k <i>l</i> m	14 140 68 60 77 13 13 25 34	14 193 110 60 103 14 13 28 59	19 258 162 70 141 16 12 31 87	15 316 212 75 171 16 12 31 112
p t	12 11	12 11	15 17	15 17

<sup>\*</sup> In initial position

#### **Accessories**

Indicating instruments, see Page 9-9 Reference Discs 390 see Chapter 13 Gage Blocks see Chapter 13

Holder 840 Fk and Stand 840 Ff see Page 9-15



# **Accessories** for Dial Indicators and Dial Comparators



# **Holder 840 Fk** for Dial Indicators and Dial Comparators

- For attaching to the following measuring instruments
   840 F/FC, 840 FH, 840 FG, 840 FM and 852
- Straight transfer of the spindle movement to the indicator
- Following the Abbe principle allows an even higher degree of accuracy than the already excellent level obtained with the standard set-up employing 90° transmission
- When the indicating instrument is in the shown position it is often easier to read
- For stationary application when in conjunction with the Stand 840 Ff

Catalog no.		Suitable for instruments with measuring ranges (mm)				
	840 F/FC	840 FH	840 FG	840 FM	852	
840 Fk/1 840 Fk/2 840 Fk/3 840 Fk/4	0 - 25 25 - 60 50 - 100 (100 - 150 (150 - 200	0 - 30 30 - 80	0 - 50 40 - 90	0 - 40 40 - 80 80 - 130 130 - 180	0 - 45 45 - 85 85 - 140 140 - 190	4450050 4450051 4450052 4450053



# Stand 840 Ff

- For stationary application in conjunction with the following measuring instruments
   840 F/FC, 840 FH, 840 FG,
   840 FM, 840 E and 852
- User has both hands free for insertion of work piece and retraction of moving spindle
- Indicating instrument is always in operator's feld of vision
- Rugged, rigid cast-iron stand with clamp for locking the indicating snap gage
- Indicating snap gage is locked in mounting hole for dial comparator
- Only in conjunction with **Holder 840 Fk**

Catalog	no.	Suitable for instruments with measuring ranges (mm)					
	840 F/FC	840 FH	840 FG	840 FM	840 E	852	
840 Ff	{ 0 - 25 25 - 60	0 - 30	0 - 50	0 - 40	0 - 25	0 - 45	4450020